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ABSTRACT

Project IMPACT is based on an innovative prevention/community intervention model designed to stem the use of drugs and alcohol in an Oregon school district. A total of 74 teachers, administrators, and community leaders participated in a training session which included didactic and experiential sessions informing participants about the nature and extent of substance abuse in their communities and teaching them substance abuse diagnostic and intervention skills. Etiology of substance-abusing behavior, communication skills training, and family systems concepts were all basic components of the IMPACT training. An evaluation of the training indicated that: (1) teachers who participated in IMPACT were significantly more confident in their substance abuse diagnostic skills and had a greater awareness of the drug problem than teachers who had not participated; (2) teachers in the IMPACT training group appeared to provide more alcohol and drug education to their students than did the control respondents; (3) based on a survey of parents, a significant association was found between having a child with a drug problem and their parents' preference for prosocial responses over punitive responses to cope with substance abuse problems; (4) parents and teenagers reporting very communicative families estimated less drug and alcohol use by children; and (5) teenagers' levels of drug and alcohol use was significantly related to peer use levels. (ABL)

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ABBREVIATED VERSION

IMPACT: AN EARLY INTERVENTION DEMONSTRATION PROJECT

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IMPACT: AN EARLY INTERVENTION DEMONSTRATION PROJECT

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NOVEMBER 15, 1988

BY INTEGRATED RESEARCH SERVICES, INC.

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EXECUTIVE SUMMARY

This demonstration project funded by ADAMHA, Office of Substance Abuse Prevention, reports findings from Project IMPACT. The project was based on an innovative prevention/community intervention model designed to stem the use of drugs and alcohol in one particular Oregon school district. The model known as Project IMPACT includes the following objectives: (1) to formulate a comprehensive drug policy in the target high schools; (2) to evaluate the perceived effectiveness of current policies; (3) to assess systematically the needs of school and community for preventive interventions for youth at early stages of drug use; and (4) to establish permanent procedures for the identification and referral of students with problematic use of "gateway" drugs.

A total of 74 teachers, administrators, and community leaders participated in two consecutive weeks of four-day, 40-hour intensive workshops provided by National Training Associates, a nationally recognized organization of substance abuse prevention specialists. The training includes didactic and experiential sessions that inform participants about the nature and extent of substance abuse in their communities and teaches them substance abuse diagnostic and intervention skills. Etiology of substance-abusing behavior, communication skills training, and family systems concepts are all basic components to the IMPACT training. Pre/post surveys were administered to the treatment group as well as two non-treatment groups that served as control populations for the demonstration project. Students and parents were also sampled regarding various issues pertinent to substance use in the family and constructs of family communication and control.

The major findings of the report are as follows:

- **Based on the pre-intervention assessment (baseline), teachers who participated in IMPACT training rated their schools' drug policy as less effective than did teachers in the control conditions. This suggests a greater awareness of the seriousness of the problem in the experimental group.**
- **The baseline assessment also showed that teachers who participated in IMPACT training were more aware of having an IMPACT Core Team available to assist them with substance abuse problems than did those in the control groups.**

- Also on the baseline assessment, teachers who participated in IMPACT training rated the severity of their schools' drug problem as much greater than did teachers in either of the control conditions. This suggests an overall awareness and acknowledgment of the seriousness of the substance abuse problem as opposed to a more passive attitude.

- Based on a post-experimental survey, teachers in the intervention group were significantly more confident in their substance abuse diagnostic abilities than they were before training or than were teachers in either control group. Teachers in both control groups showed no change over time.

- Based on a post-intervention assessment, teachers in the experimental group report significantly more direct involvement with substance abuse prevention teams after their IMPACT training than did respondents from the two control groups; or than experimental subjects before training.

- Based on the post-test assessment, teachers in the IMPACT training group appeared to provide more alcohol and drug education to their students than did the control respondents. In fact, one further analysis showed that the amount of alcohol education provided actually decreased significantly in one control community.

- Based on a survey of parents in the target school district, a significant association was found between having a child who has a drug problem and their parent's preference for prosocial responses (over punitive responses) to effectively cope with substance abuse problems. This suggests that parents who are faced with at risk offspring favor a more positive and supportive response to intervention and treatment than do those parents with kids not at risk. Parents with a substance-abusing spouse also preferred prosocial strategies over punitive ones.

- Based on a survey of parents and teens, a significant association was found between the communication factor and family income (the greater the income the more open or constructive communication occurs in the family). This was also true for greater communication levels among more highly educated parents.

- Parents who suggest their families are very communicative estimate less drug and alcohol use by their children and their spouses. This finding was further validated by results from the TEEN questionnaire; teens who noted they had "good" levels of communication with their parents reported less personal drug and alcohol use.

- Conversely, those families that rate themselves low on communication and control, are more likely to have actually been contacted by school administrators for suspected substance abuse problems with their teens.

- Based on the TEEN questionnaire, those students who come from strong communication families rate their parents as more influential role models than are their peers, while teens from families low in communication rate their peers as more influential than their parents.

- Parents who scored high on the "controlling" subscale reported their children were less inclined to use drugs or alcohol. This finding was validated by results from the TEEN questionnaire; those teens who reported their parents were controlling also reported less drug or alcohol use.

- **The PARENT survey also revealed fewer actual contacts from the school administration for suspected drug and alcohol problems for those parents scoring high on the controlling subscale; or those parents somehow more involved with their children. Additionally, drinking habits by both parents were reported to be less for those parents who scored high on the controlling subscale; suggesting their controlling style generalized their own substance-abusing behavior.**

- **The amount of stress respondents had experienced in the last year also served as a strong predictor of substance use by students (for drugs and alcohol) and their parents (for alcohol).**

- **Based on responses from the TEEN questionnaire, teens' levels of drug and alcohol use was significantly related to peer use levels.**

DISCUSSION:

Drug Policy:

A stated goal of this demonstration project was to determine the extent to which a drug policy exists in the school districts and is understood or perceived as effective by key players in the school. Although a pre-existing difference was found between treatment conditions, those teachers who participated in the experimental condition rated their schools' drug and alcohol policy as less effective than did teachers in the within and external control groups. This finding suggests that teachers participating in the IMPACT training have an already enhanced awareness of the serious nature of their school's problem. It also suggests that these teachers are ready to make some institutional changes with regards to policy both within the school and outside in the community. This finding was validated by a measure which addressed severity of the problem. Those in the IMPACT training group rated the severity of their school's problem as much greater than did teachers in either of the control conditions. This again suggests a willingness by IMPACT teachers to acknowledge the "drug problem" as opposed to denying its existence.

Diagnostic Confidence:

One of the more important findings from this demonstration project was the ability of teachers in the experimental group to have more confidence in their diagnostic and intervention abilities after the training occurs. A major goal of project IMPACT is to educate teachers about substance-abusing behavior, symptoms of use and abuse, and drug typologies. Teachers felt more capable and confident in their diagnostic abilities after the four-day 40-hour intensive training. This training effect may have been mediated by enhanced teacher confidence or self-efficacy (Bandura, 1977b) through a series of multi-faceted strategies implemented during the intensive IMPACT training. The training includes communication and

intervention role playing, didactic lecture, and live "in - vivo" interviews with recovering students. The role-playing and behavior rehearsal is a particularly useful and productive intervention strategy as indicated by the overall findings presented here.

In making a referral based on a proper diagnosis, teachers noted they felt more confident in identifying a drug problem when the student was male. This gender effect is supported in the alcohol research literature (Beckman, 1984; Beckman & Amaro, 1986; Harvey & Beckman, 1985) where women are most often perceived as not having serious alcohol problems and therefore don't merit referral to treatment. Women's substance use has long been considered socially inappropriate and hence has become more hidden "in the home," whereas male use more typically occurs in the public domain. This is an important intervention clue for leaders and facilitators in IMPACT training. It may require IMPACT leaders to address this female stereotype issue more during training itself, perhaps with more related role playing among male and female participants in the training modules. Additionally, a larger number of female adolescents who are recovering could be included in the training strategies to highlight the inaccuracy of this "female" non substance-abusing perception.

In assessing the type of diagnosis made based on the presenting behavior, the authors wanted to learn what criteria teachers used in making the decision to refer a high risk student for substance abuse assessment. A check list was introduced in all schools that participated in the study. A factor analysis of 27 symptoms used to identify students as at risk for substance abuse problems isolated five cohesive factors. These factors included groups of students identified as: (1) poor students; (2) aggressive; (3) isolative; (4) having parental problems; and (5) substance users. Teachers' ability to diagnose with confidence appeared to be related to displays of aggressive behaviors by the student and his/her parental problems at home. This finding was encouraging because of the high emphasis placed on diagnostic differentiation between substance abuse vs. other problem behaviors as taught in the IMPACT training (Jessor & Jessor, 1977). Additional analyses were even more encouraging. Our correlations found that the number of problem behaviors identified by teachers were

associated with both diagnostic confidence and internal vs. external referral types. This suggested to us that as teachers were more aware of the pattern of problem behaviors, they became more confident of their diagnostic abilities. Their confidence appeared to be associated with the ability to make an appropriate referral for substance-abusing behavior. More long-term outcome research is needed to see if this pattern continues, and what the actual outcomes for students are, based upon this increase in the referral process.

Training and follow-up:

Teachers who had experienced the IMPACT training program reported more involvement with substance abuse prevention/intervention teams compared to those in the control group conditions. Project IMPACT emphasizes a team approach to prevention and intervention in the schools. Part of the training involves an understanding of resources in the school and community that are available to teachers who might have high risk students in their classroom. Additionally, the IMPACT model is designed to leave in place a permanent and ongoing intervention and follow-up team in the schools through the resources and expertise of the members of a permanently available Core Team. The Core Team includes teachers, administrators, and community intervention specialists who have had previous training in substance abuse prevention, and in particular, IMPACT training. Teachers who went through the four-day 40-hour training clearly indicated more need for immediate intervention and were more actively involved with Core Team members after the training. This suggests that along with diagnostic confidence, teachers acknowledged the magnitude of the drug/alcohol problem in their schools and were willing to seek additional human resources and back-up when deemed necessary. These findings support results from a prior study of IMPACT training by the current authors (Caudill et al., in press).

Another interesting finding was that teachers in the experimental group did in fact provide more alcohol and drug education in the classroom over the past year after participating in IMPACT training (34% more, that was, however, statistically nonsignificant). They offered

more curriculum, education, and guidance than any of the other control schools. These findings are also consistent with a previous examination of IMPACT training. Of interest, however, is that one of the control groups (another school district in Oregon) actually had a significant decrease in drug education provided during this same time. Although we have no empirical evidence, our research team found several schools resistant to discussing prevention activities. Anecdoctally, we learned that some schools had no formal drug and alcohol policy, they often refused training seminars, and in some cases preferred just calling law enforcement personnel when confronted with a problem. Some schools indicated that drug use required intervention but alcohol use did not. One Jackson County principal noted that even their local sheriff indicated he would not arrest adolescents for drinking driving violations. In general, some school administrators appeared fearful of substance abuse issues, and instead opted for a "denial" strategy when looking at prevention techniques (Moskowitz & Jones, 1988).

As reported earlier, IMPACT uses a multi-faceted, broad-based approach to prevention and intervention. A major focus of the trainers is to get participants involved in a team effort or collaboration between the school, members of the community, and family members of the students. In so doing, IMPACT is structured in a learning theory model used in the context of the public health approach (agent, host, and environment) in the prevention of substance-abusing behaviors. The public health approach involves the interaction of three components: (1) the agent or substances; (2) host or student; and (3) the environment or school, community, family, and peer groups. The philosophy of this prevention approach is that the community including family members may improve the attitude, behavior, and health of its members by considering the role of the agent, the host, and environment and the interaction of all three (Bacon, 1978; Nathan, 1983).

The Family:

In trying to further assess the effectiveness of the IMPACT training strategy within the context of the public health/social learning theory model, we surveyed parents as well as

students and teachers. Based on a survey of parents in the experimental school districts, a relationship was found between a high risk drug/alcohol using student and their parents' preference for prosocial responses to cope with that particular problem. These prosocial responses included, for instance, specific referrals to treatment, getting teachers and parents together, and making contact with peer counselors (see Table 3). These responses were in contrast to punitive ones (e.g., drug testing, suspensions, arrests) and were directed at dealing with specific substance-abusing behaviors. This finding suggests that those parents who have had experience (or are presently experiencing) drug abuse with their kids have adopted a more supportive prosocial attitude toward referral and treatment. This same effect was revealed for families where the spouse abused substances; the non drug-taking spouse preferred a prosocial intervention. Additionally, we found that the better educated parents preferred pro social strategies. These findings seem quite encouraging; suggesting that parents who have first hand experience with substance abuse problems (either personally or with offspring) are willing to endorse education, community intervention and peer counseling measures before turning to punitive solutions such as drug testing, legal penalties, and expulsion from school.

Questionnaire items that assessed levels of cooperation or constructive communication within the family suggest that the higher the education and income the more positive the communication within the family. More importantly, however, is that parents who reported more communicativeness estimate less drug and alcohol use by their children. This was also true for their estimates of spousal substance use. This finding was further validated by our TEEN questionnaire. Teens who reported "good" levels of communication with their parents reported less drug and alcohol use. Conversely, those families that reported on our instrument low levels of communication were most likely to have drug and alcohol problems among family members. These families are also more likely to have been contacted by the school and its administrators for suspected substance abuse problems with students. This finding supports an underlying tenet of project IMPACT. A substantial portion of the four-day 40-hour training program surrounds the issue of openness, direct communication, and the power of

positive modeling of socially constructive behavior (Bandura, 1977a; 1986). It appears that both parents and teachers have learned the importance of including the entire family (in this way) in the intervention process.

Parents and Teens:

As noted earlier, both parents and teens were asked to provide information about their style of family interaction. Factor analyses on these items were performed on both the PARENT and TEEN questionnaires with virtually identical results. Two interpretable factors emerged which included concepts of family communication and family control. When looking at the relationship between both control and communication, a number of interesting relationships seemed to emerge which may be put into the context of a constructive substance abuse prevention/intervention strategy such as the IMPACT training.

Parents who scored high on the control scale (e.g., severe rules at home, physical punishment, strict adherence to church attendance) reported that their teens drink less than did parents who score low on this scale. This finding was identical for drug use. Secondly, those parents scoring high on the control scale exhibited very high disapproval ratings of both alcohol and drug use by their teens. Third, we found that parents who scored high on control were actually less likely to have received calls from administrators regarding their son or daughter's problem behavior in the schools. This finding might suggest that part of a prevention strategy is to ensure components of discipline in any family unit. This type of disciplinary intervention might appear difficult or even impossible, considering the age of the target group and the possibility that experimentation with "gateway" drugs has already occurred. Fortunately, additional data from the communication scale proved to be even more encouraging as a prevention strategy.

Parents who rated their families as more communicative estimated less drug and alcohol use by their children. Components of a communicative family included: (a) support for one another; (b) understanding of each other; (c) planning activities together; (d) independent

but together; and (e) consensus on punitive strategies. Our findings suggest that families who rated low in communication and/or control appear to have more substance use among their children. Control and communication seem to cross-pollinate again as our results indicated that there was more contact from school administrators regarding problem behavior where families rated low in control and/or communication. We also found that families with greater communication seem to have less alcohol use by adult members, at least in the case of a respondent's spouse. Teens from highly communicative families also reported less drug and alcohol use.

As a cross validation measure, we asked a series of questions regarding the responsibility for substance abuse behavior among students. It was our intent to establish the amount of influence schools or parents had over this issue. It was determined in assessing teens' attitudes that those parents who have a high degree of respect from their children are, therefore, seen as influential role models. Relative to their peers, these teens are less likely to experience substance abuse in their families (Czechowicz, 1988). Finally, parents were asked about their interaction with their spouses. We wanted to see if there was a relationship between family arguments, drinking habits, and communication in the family. Indeed, when arguments occurred in families, there was usually a higher level of alcohol consumed. And the corollary was also true. Fewer arguments and less alcohol use occurred when communication levels were high. Although this does not shed any bright new light on the research literature on the importance of family communication in preventing social ills such as substance abuse (Jacob, 1987; Jacob & Leonard, 1988), it does support the intervention components presently emphasized in IMPACT training. A primary emphasis in the IMPACT training program is the importance of family communication in preventing substance abuse. Communication and empathy are regarded as key components in the prevention/intervention process. This message apparently was effectively conveyed to trained participants, who subsequently expressed their preferences for such prosocial and supportive efforts.

Teens:

Correlations were conducted on several subscales, using similar criteria to evaluate substance use and perception of use among teens as we did in the PARENT questionnaire. The negative relationship of control issues within the family to estimates of drinking behavior suggests that teens coming from a controlling family situation perceived important adult models as disapproving of their alcohol use. This finding was validated by the teens response to communication issues within the family. Teens coming from communicative families said their parents were more of an influence on their behavior than their peers. This finding lends support to the public health approach to substance abuse prevention where the family acts as an environmental prevention/intervention force on the host or the individual at risk. Conversely, our analysis showed that teens from families low in communication instead reported their peers as more influential than their parents. In addition to emphasizing the importance of family communication, refusal skills training and peer resistance techniques also appear indicated for those students who find themselves in situations where risk taking behavior is imminent. Although not a focal point for IMPACT training, more refusal skill and peer resistance techniques could be introduced in the training literature as part of the IMPACT training process (Flay, 1981; Flay et al., 1983; Hansen et al., 1987a; Pentz, 1985). These techniques could be modeled for students in the classroom setting. IMPACT liaison personnel are available to help establish such programs for schools that have implemented IMPACT training and Core Teams.

Self-report measures of heavy drug taking behavior by teens were shown to be related to both low communication and control. Families who rated high on the communication subscale (with less arguments and family conflict) were found to have fewer substance-abusing behaviors among students from those families. Our stress indexes based on questions from both parents and teens were included in a multiple regression model that involved communication, control, prosocial activities, and punitive responses. The stress index and communication factors jointly proved to be valuable predictors of teenage problems. The

findings here suggested that greater communication in the family could help offset stressful life events in the family (Holmes & Rahe, 1967; Schlesinger, 1988). These findings are particularly important to any substance abuse prevention strategy. If a family system or environment can be targeted early on as at risk or having an inordinate amount of stress, community intervention by a family physician, psychologist, social worker, or school counselor might provide an early intervention for all members of the family to help prevent or alleviate further problems.

This issue of targeting high-risk youth (Bloch & Ungerleider, 1988) is of importance and can be factored into the intervention formula. For example, our data showed that younger, unmarried, blue collar parents seemed to have more problems with their teens than older, married, white collar parents. Also our findings, revealed that parents who reported problems with their teens scored higher on the stress index than other parents. Unfortunately, causal direction has not been established here but there is some evidence that targeting of high stress situations and fostering better communication in these families could lead to a prevention of substance abuse problem at a later date.

CONCLUSIONS:

This early intervention demonstration project under the Office of Substance Abuse Prevention (ADAMHA) considered several hypotheses on the consequences of implementing Project IMPACT in the Linn-Benton, Oregon school system. It was hypothesized that teachers who participated in the IMPACT training (experimental group) would perform better than untrained teachers (two control groups) on several measures. The following hypotheses were tested in the evaluation of our demonstration project:

(1) Treatment schools will have more internal and external referrals to evaluation and treatment than will control schools.

(2) Treatment schools with a comprehensive drug policy will have more internal and external referrals than those without such a policy.

(3) Treatment schools that use Core Teams and community resources will initiate more innovative prevention approaches (e.g., hot lines, teen safe rides, recreational facilities), and be more inclined to prefer broad-based community interventions.

(4) Treatment schools that use the multi-media component and/or maintain Core Team leaders will have more internal referrals for professional evaluation.

(5) Teachers and parents associated with treatment schools will have more favorable attitudes toward intervention by community members outside the schools (e.g., parents, clergy).

(6) Teachers in treatment schools will feel more skilled in differentiating problem behavior associated with substance abuse from other problem behavior.

(7) Treatment schools will be more effective than control schools in reducing the prevalence of substance abuse due to increased levels of intervention in the treatment setting.

(8) Treatment schools that use peer counseling, peer support groups, and peer resistance training will have a lower prevalence of substance abuse than those that do not use these techniques, as evidenced by increased levels of intervention, substance abuse education provided, and Core Team usage. Among treatment schools, a number of these techniques will be negatively associated with the prevalence of substance abuse.

Additional hypotheses were developed as part of the demonstration project as new constructs were included in the instrument design. These included:

- Families with "good" levels of communication will exhibit less drug and alcohol use.
- Peer drug and alcohol use will predict self-use for students.
- IMPACT trainees will prefer prosocial intervention strategies over punitive ones.
- Families with substance abuse problems will prefer prosocial interventions.

- **Stress experienced in the past year will serve as a predictor of substance use in the family.**
- **No pre-experimental hypotheses were developed for controlling family styles due to the double-edged influences of controls serving useful limit-setting purposes, yet being unreasonably demanding, hence inducing stress.**

In order to test the hypothesized relationships, various analyses were performed. The first hypothesis received partial support. Self-reported referrals did increase in the experimental group but findings were not statistically significant. Due to the brief period between training and assessment, only a trend for increased referrals could be found. Increased referrals were evident, however, in that IMPACT trainees referred significantly more students to Core Teams, hence made more referrals. This hypothesis also involved the implementation of referral forms in both the experimental and control sites. Forms were introduced into all schools but accurate and reliable summary data of prior referrals was not available in most locations. Therefore, valid comparisons between pre and post intervention times cannot be made at the present, although the mechanism is now in place for future data collection.

The second hypothesis was also not supported in full. Not enough data was available to the research team regarding policy because most schools at the beginning of the demonstration project did not have formal written drug and alcohol policies. However, Project IMPACT (especially the IMPACT Core Teams) has been responsible for implementing more formalized, written, substance abuse policies where none existed and modifying those sites that had partial or inadequate policies (an emphasis in IMPACT training).

The third hypothesis was only partially supported. Project IMPACT emphasizes a major commitment from social workers, treatment specialists, law enforcement officials, and other community resource personnel in an attempt to design a human resource liaison between the school and key players in the community. Although no formal programs have been initiated (to date), discussions are under way to implement a task force, hot lines for "at risk" youth and teen safe ride programs under the auspices of MADD volunteers. Additionally, a special unit of the Drug Enforcement Agency, Demand Reduction Department has assigned

community specialists to travel throughout Oregon and offer services when needed. IMPACT Core Teams, then, are indeed working on establishing such innovative interventions in the experimental location, with help from IMPACT liaison personnel. IMPACT trainees also expressed clear preferences for such increased community involvement and cooperation in order to effectively address the substance abuse problem in their area.

The fourth hypothesis received partial support. IMPACT trainees made more referrals to Core Teams than did non-IMPACT trained personnel. The aforementioned problems with summary data, however, did not allow pre-post comparisons. More referrals were evident also in trained locations than untrained, but this may have been a reflection of greater levels of cooperation.

Partial support was found for the fifth hypothesis. Treatment schools had more favorable attitudes toward community intervention specialists, social workers, and clergy than control sites but the relationship was not statistically significant. It is clear that a trend was established during the demonstration project as more teachers felt secure in contacting resource people in the community who could assist with substance-abusing students.

Teachers in the IMPACT schools (treatment condition) were clearly more skilled in differentiating problem behavior associated with substance abuse from other problem behavior (than teachers in the control sites). The sixth hypothesis was clearly supported. As reported earlier in the results section, IMPACT teachers were significantly more confident about their diagnostic abilities to assess drug and alcohol problems after IMPACT training.

Hypothesis seven received partial support. Increased levels of intervention were evident with increased Core Team usage by trainees, which could be assumed to reduce prevalence rates. A longitudinal design, however, would be necessary to track the actual outcome of these increased interventions. The research literature suggests that a minimum of five years is necessary to collect reliable outcome data and assess the prevalence issue. It is the hope of this contractor that the Linn-Benton schools will continue to collect both internal and external referral data in an attempt to assess this prevalence measure. In the interim, Integrated

Research Services, Inc. will pursue grant opportunities to assist the Linn-Benton school district and its county with continuing their fine prevention and intervention efforts.

The eighth hypothesis also received partial support. Increased levels of intervention occurred after IMPACT training, as reflected by Core Team usage, and greater amounts of substance abuse education were provided by IMPACT trainees. Additional time following the IMPACT intervention (treatment) is necessary, however, to assess any shift in the actual incidence of drug and alcohol abuse over time. IMPACT uses a multi-faceted approach that not only includes teaching diagnostic, communication and intervention skills in their four-day 40-hour prevention/intervention program, but also instructs participants with peer support groups, coping and resistance skills training, and support for drug-free students after intervention occurs. IMPACT Core Teams (and IMPACT liaison personnel) remain available after the training occurs to help establish such programs in the schools. Core Team members, along with IMPACT liaison personnel, train teachers in these skills and provide periodic updates and refresher courses in using and role-playing these techniques. Our speculation is that over the next three to five years a negative relationship between the use of these prevention/intervention skills and prevalence of substance abuse will be found.

The additional hypotheses that were based upon concepts developed with items introduced in the various questionnaires also generally received good support. The communication construct served as an excellent predictor of substance use in the family, for adolescents and their parents. This finding highlights the importance of open and constructive family communication in the substance abuse prevention arena (Schlesinger, 1988). The importance of coping skills was also highlighted by these findings. Peer substance-using behavior, for instance, was a strong predictor of students' substance use, as was the amount of stress respondents had experienced over the past year (see Figure 1).

Families that had experienced substance abuse with their children or spouses preferred prosocial responses to address the substance abuse problem, which was indicative of their increased empathy for the user. IMPACT-trained participants agreed with this emphasis,

which was encouraging since this supportive atmosphere is encouraged in the IMPACT training. A controlling family style was also a significant predictor of substance use in the family, perhaps due to a contrast with families who are completely disengaged from their children, or show no interest or limit-setting.

The overall findings of the demonstration project indicate that the IMPACT program is perceived as a highly effective model in the substance abuse prevention/intervention process. The IMPACT program has been shown to be effective for youth who are involved with "gateway" drugs and students falling into "high risk" categories. The goals of IMPACT include a formulation of a comprehensive drug policy, the assessment of school and community needs for youth at the early stages of drug use, and the establishment of procedures to identify, diagnose, and refer students with problem behavior associated with substance abuse. Components of IMPACT include training the Core Team which consists of teachers, administrators, and community personnel involved with social services and outreach. The Core Team is trained in a multitude of strategies that include peer counseling, peer resistance skills, communication skills and modeling of positive and healthy behaviors in the classroom.

The IMPACT training did, in fact, assist teachers with enhancing their level of self-efficacy and confidence in identifying students' alcohol and drug problems. Many issues however, must be addressed in future demonstration projects with IMPACT models or other related training programs. A focus on training content as well as the style of individual group facilitators might provide a source of variance for information learned and retained in a four-day 40-hour intensive session. This variance might affect the participants level of cooperation and future involvement in substance abuse prevention strategies. One option for IMPACT training for teachers and community personnel is to review the content of training literature and rank the amount of hours focused on one skill or technique. An example might include having an established amount of time devoted to role-playing student-to-student peer pressure situations. Another example might be to rank the "recovering student" segment of the training sessions. These modules might vary from the various IMPACT trainings offered in schools

nationwide. Two recent studies (Hansen et al., 1987a; Rohrbach et al., 1987) investigated this specific training component issue. By assessing various training components within an intervention, prevention researchers can identify successful training strategies and henceforth target their prevention efforts appropriately.

Future demonstration projects and evaluation efforts must allow ample time for the following procedures to take place: (1) development of the intervention; (2) liaison with the target site or school population; (3) baseline measurement among treatment and control groups; (4) enough resources for multiple trainings and interventions; (5) ample time to allow training and trainees to absorb and practice skills; (6) post intervention measurement; (7) follow-up at one year, two year and three to five year intervals; and (8) tracking of referrals and self-sufficiency within the training site or district.

One final goal for interventions such as IMPACT would be to provide a GUIDE TO EVALUATION AND ASSESSMENT that included a segment on training of key personnel in the school system to carry out assessment functions. Design of instruments, referral forms, and documentation of ongoing interaction with the Core Team would be part of the GUIDE. This resource would allow for greater self-sufficiency for individual school systems nationwide. This information would assist any future demonstration project that focused on the prevention and intervention of substance abuse among our country's youth and the goal of providing a drug-free school and community.